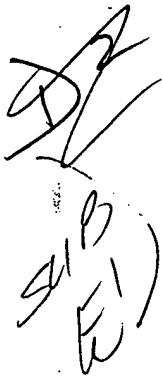
 expressing said voltage-sensitive sodium channel encoded by said nucleic acid molecule in the host cell so as to result in the functional expression of a voltage-sensitive sodium channel in the host cell;

exposing the host cell to a chemical agent; and

evaluating the exposed host cell to determine if the chemical agent modifies the function of the voltage-sensitive sodium channel.

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47. (Amended) A method of screening a chemical agent for the ability of the chemical agent to modify sodium channel function, said method comprising:

 introducing a first nucleic acid molecule encoding a voltage-sensitive sodium channel of *Musca domestica* and a second nucleic acid molecule encoding a tip E protein into a host cell, wherein said first nucleic acid molecule hybridizes to a nucleic acid molecule having a nucleotide sequence according to bases 1 to 1011 or 1321 to 5030 of SEQ. ID. Nos. 1 or 2 at 42°C, with 5 x SSPC and 50 percent formamide with washing at 65°C with 0.5 x SSPC;

allowing said host cell to coexpress said first nucleic acid molecule and said second nucleic acid molecule so as to result in the functional expression of a voltage-sensitive sodium channel in the host cell;

exposing the host cell to a chemical agent; and

evaluating the exposed host cell to determine if the chemical agent modifies the function of the voltage-sensitive sodium channel.

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